

Amendments to the Drawings

Figure 1 has been updated to remove informalities and the word Figure has been changed to Fig.

Figure 2 has been modified to remove idle periods 180 and the second instance of 152 as these elements were not necessary in order to illustrate an example of an upstream transmission frame 150. Element 170 has been modified to make it consistent with other portions of upstream transmission frame 150. None of these changes add new matter.

Figure 3 has been modified to better show that function 206 is an exclusive OR (XOR) function. This drawing change is in keeping with the relevant text of the original specification:

Thus, as shown in **Figure 3**, a portion of non-scrambled message **204** undergoes a bit by bit exclusive OR operation **206** with a sequence of bits **208** generated by the feedback shift register. The resulting sequence of scrambled bits is sent as part of scrambled message **212**. At the receiving end, a feedback shift register performing the same internal manipulation for the same number of iterations after receiving the same seed as used at the transmit end will generate a sequence of bits **216** at the receive end. Repetition of the bit by bit exclusive OR operation **206** with the received scrambled message yields a received unscrambled message **220** that matches the non-scrambled send message **204**. (Page 10, line 28 to Page 11, line 5).

Figure 4 has been changed only in that it uses Fig. instead of Figure.

Figure 5 has been changed in it uses Fig. instead of Figure. Figure 5 also differs from the originally filed drawing in that the English text has been removed.

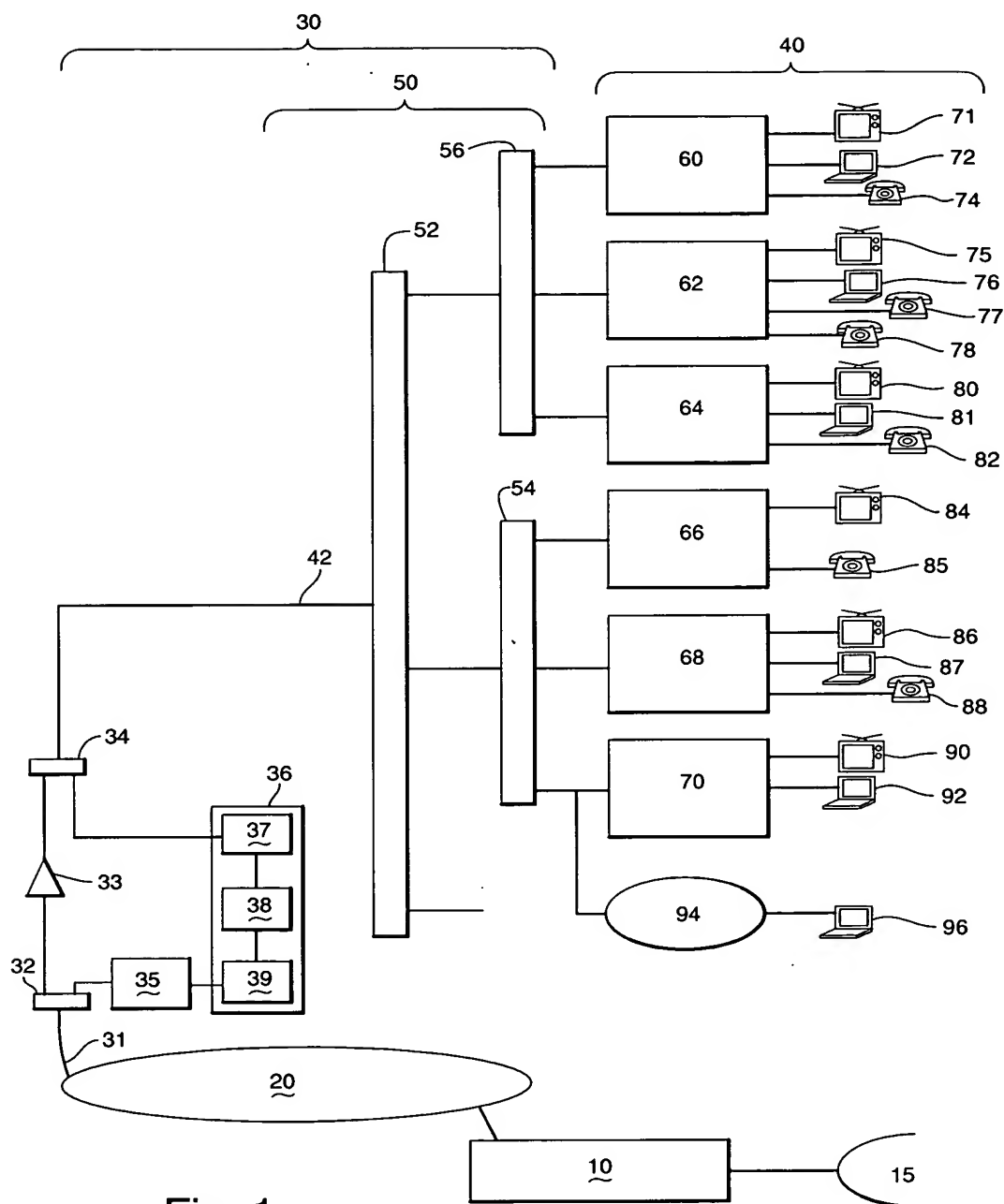
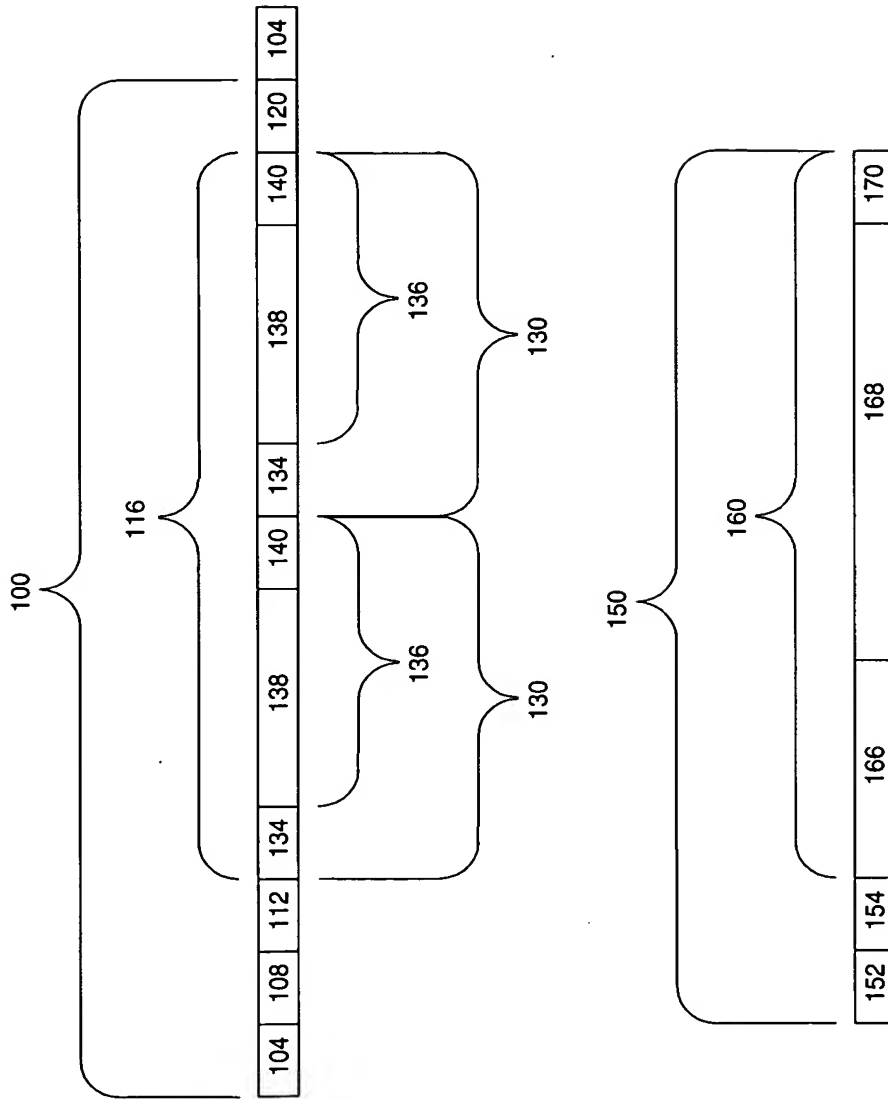


Fig. 1



Fig. 2



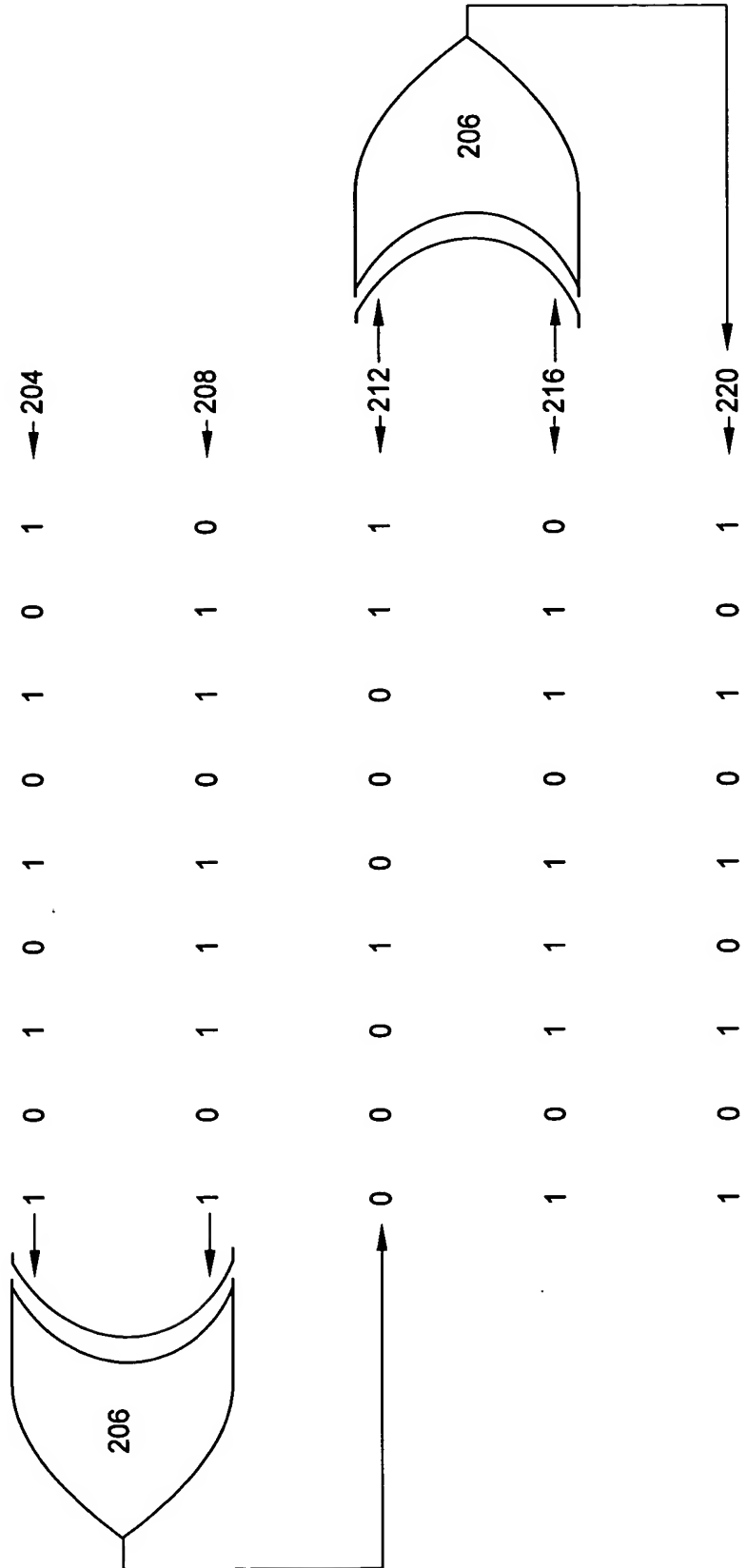


Fig. 3



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Supplemental Preliminary Amendment
Replacement Sheet

STEP	Sequence	Direction	Pass scramble seed:	Scramble both the message and the passed key with:	Un-scramble with:	Receive scramble key:
400	Server learns the MAC ID of client modem					
410	Send by server	downstream	nothing	Seeds based on MAC ID of client modem		
414	Receive by client				seeds based on own MAC ID	client receives no key
420	Send by client	upstream	upstream CRC code	Seeds based on MAC ID of client modem		
424	Receive by server				with seeds based on client modem MAC ID (the MAC ID of the client is known since by implication in a polling based system).	upstream CRC code
430	Send by server	downstream	random number	First by MAC ID based seed then with Seed based on the upstream CRC code		
434	Receive by client				First by seed based on the last upstream CRC code then by seed based on MAC ID	random number
440	Send by client	upstream	new upstream CRC code	First by seed based on the random number then by seed based on last upstream CRC code		
444	Receive by server				first by seed based on the last upstream CRC code then by seed based on the random number	new upstream CRC code
450	Send by server	downstream	new random number	first by seed based on the last random number then by seed based on the new CRC code		
454	Receive by client				first by seed based on the last upstream CRC code then by seed based on the last random number	new random number
460	Repeat steps 440 through 454 until new power up or lack of response causes restart with MAC ID					

Fig. 4



Fig. 5

